

SEQ ID NO: Sequence

- 1 *Rana pipiens* liver ribonuclease cDNA (RaPLR1)
- 2 *Rana pipiens* liver ribonuclease amino acid (RaPLR1)
- 3 *Rana pipiens* ribonuclease cDNA with Met23Leu  
(recombinant RaPLR1 Met 23Leu)
- 4 *Rana pipiens* ribonuclease amino acid with Met23Leu  
(recombinant RaPLR1 Met 23Leu)
- 5 *Rana pipiens* ribonuclease cDNA with Met at position 1  
(recombinant Met(-1) RaPLR1)
- 6 *Rana pipiens* ribonuclease amino acid with Met at position 1  
(recombinant Met(-1) RaPLR1)
- 7 *Rana pipiens* ribonuclease cDNA with Met at position 1 and Met24Leu  
(recombinant Met(-1) RaPLR1 Met23Leu)
- 8 *Rana pipiens* ribonuclease amino acid with Met at position 1 and Met24Leu  
(recombinant Met(-1) RaPLR1 Met23Leu)
- 9 *Rana pipiens* ribonuclease amino acid with (His)<sub>6</sub>, Met at position 7 and  
Met30Leu (recombinant Met(-1) RaPLR1 Met23Leu-(His)<sub>6</sub>)
- 10 *Rana pipiens* ribonuclease cDNA with Gln1Ser (recombinant RaPLR1 Q1S)
- 11 *Rana pipiens* ribonuclease amino acid with Gln1Ser (recombinant RaPLR1 Q1S)
- 12 *Rana pipiens* ribonuclease cDNA with Met at position 1 and Gln2Ser  
(recombinant Met(-1) RaPLR1 Q1S)
- 13 *Rana pipiens* ribonuclease amino acid with Met at position 1 and Gln2Ser  
(recombinant Met(-1) RaPLR1 Q1S)
- 14 *Rana catesbeiana* oocyte ribonuclease synthetic gene cDNA (RaCOR1)
- 15 *Rana catesbeiana* oocyte ribonuclease synthetic gene amino acid (RaCOR1)
- 16 *Rana catesbeiana* ribonuclease cDNA with Met at position 1  
(recombinant Met(-1) RaCOR1)
- 17 *Rana catesbeiana* ribonuclease amino acid with Met at position 1  
(recombinant Met(-1) RaCOR1)
- 18 *Rana catesbeiana* ribonuclease cDNA with Met22Leu and Met57Leu  
(recombinant RaCOR1 Met22Leu Met57Leu)
- 19 *Rana catesbeiana* ribonuclease amino acid with Met22Leu and Met57Leu  
(recombinant RaCOR1 Met22Leu Met57Leu)
- 20 *Rana catesbeiana* ribonuclease cDNA with Met at position 1, Met23Leu and  
Met58Leu (recombinant Met(-1) RaCOR1 Met22Leu Met57Leu)
- 21 *Rana catesbeiana* ribonuclease amino acid with Met at position 1, Met23Leu and  
Met58Leu (recombinant Met(-1) RaCOR1 Met22Leu Met57Leu)
- 22 *Rana catesbeiana* ribonuclease amino acid with (His)<sub>6</sub>, Met at position 7,  
Met23Leu and Met58Leu  
(recombinant Met(-1) RaCOR1 Met22Leu Met57Leu-(His)<sub>6</sub>)
- 23 *Rana catesbeiana* ribonuclease cDNA with Gln1Ser (recombinant RaCOR1 Q1S)
- 24 *Rana catesbeiana* ribonuclease amino acid with Gln1Ser  
(recombinant RaCOR1 Q1S)
- 25 *Rana catesbeiana* ribonuclease cDNA with Met at position 1 and Gln2Ser  
(recombinant Met(-1) RaCOR1 Q1S)

09561400-092504

- 2
- 26 *Rana catesbeiana* ribonuclease amino acid with Met at position 1 and Gln2Ser  
(recombinant Met(-1) RaCOR1 Q1S)
  - 27 *Rana pipiens* ribonuclease Clone 5a1b cDNA insert
  - 28 *Rana pipiens* ribonuclease Clone 5a1b amino acid with signal peptide
  - 29 CAAX motif to target heterologous proteins to the plasma membrane
  - 30 *Rana pipiens* forward degenerate primer
  - 31 *Rana pipiens* reverse degenerate primer
  - 32 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 33 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 34 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 35 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 36 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 37 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 38 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 39 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 40 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 41 *Rana catesbeiana* ribonuclease synthetic gene (RaCOR1) oligonucleotide
  - 42 *Rana catesbeiana* insertion primer for *NdeI* restriction site
  - 43 six histidine residue tag at amino terminus

09561400-092504

SEQ ID NO:1/2

DNA sequence 312 b.p.

linear

caa gac tgg ctc acg ctc cag aag aag cac ctc aca aac acc cgg gat gcc gac tgc aac  
gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys asn  
aac acc acg tca aca aac ctc ctc cac tgc aag gac aag aac acc ctc acc tat tca cgc  
asn ile met ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser arg  
cct gag cca gtg aag gcc acc tgc aaa gga acc ata gcc ctc aaa aac gtg cca acc acc  
pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr thr  
cct gag ctc tat ctc cct gat tgc aac gca aca agc agg cct tgc aag tat aaa tta aag  
ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu lys  
aaa tca acc aac aca ctc tgc gca acc tgc gag aac caa gcc cca gca cat ttc gtg ggc  
lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val gly  
gcc gga cac tgc  
val gly his cys

RaPLR1

094400-094400

SEQ ID NO:3/4

DNA sequence 315 b.p.

linear

caa gac tgg ctc acg ctc cag aag aag cac ctg aca aac acc cgg gat gtc gac tgc  
gln asp trp leu chr phe gln lys lys his leu thr asn thr arg asp val asp cys

aac aat att ccg tca aca aac ctg ctc cac tgc aag gat aag aac act ctc atc tac tca  
asn asn ile leu ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser

cgc ctc gag cca gtc aag gcc att tgt aaa gga att ata gcc ctc aaa aat gtc tca acc  
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr

acc ctc gag ctc tac ctc ctc gat tgc aat gca aca agc agg cct tgc aag tac aaa tca  
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu

aag aaa tca act aat aca ctc tgc gca act tgc gag aat cca gct cca gca cat ctc gtc  
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val

ggc gcc gga cat tgc  
gly val gly his cys

recombinant RaPLR1 Met23Leu

05961400-092501

SEQ ID NO:5/6

DNA sequence 315 b.p.

linear

atg caa gac tgg ctt acg ttt cag aag aag cac cctg aca aac acc cgg gat gcc gac cgt  
met gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys  
  
aat aac acc atg tca aca aac tct ttc cac tgc aag gac aag aac acc ttc acc tat tca  
asn asn ile met ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser  
  
cgt cct gag cca gtg aag gcc acc tgc aaa gga acc aca gcc tcc aaa aac gtg tca acc  
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr  
  
acc tct gag ttt tat cct cct gat tgc aac gca aca agc agg cct tgc aag tat aaa tca  
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu  
  
aag aaa tca acc aac aca tct tgc gca acc tgc gag aac caa gcc cca gta cat ttc gtg  
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val  
  
ggc gcc gga cat tgc  
gly val gly his cys

recombinant Met(-1) RaPLR1

004F9660

SEQ ID NO:7/8

DNA sequence 315 b.p.

linear

atg caa gac tgg ctt acg ttt cag aag aag cac ctg aca aac acc cgg gat gtc gac tgt  
met gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys  
aat aat att ctg tca aca aac ttg ttc cac tgc aag gat aag aac act ttt atc tat tca  
asn asn ile leu ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser  
cgt cct gag cca gtg aag gcc atc tgt aaa gga att ata gcc tcc aaa aat gtg tca act  
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr  
acc ttc gag ttc tat ctc cct gat tgc aat gca aca agc agg cct tgc aag tat aaa tca  
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu  
aag aza cea act aat aca ttc tgt gca act tgt gag aat caa gct cca gta cat ttc gtg  
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val  
ggc gtc gga cat tgc  
gly val gly his cys

recombinant Met(-1) RaPLR1 Met23Leu

F05260-004960

SEQ ID NO:7/9

DNA sequence 315 b.p.

linear

(His)<sub>6</sub>- acg caa gac cgg ccc acg ccc cag aag aag cac ccg aca aac acc cgg gac gcc gac cgc  
met gln asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys  
aac aat acc ccg tca aca aac ttg ttc cac tgc aag gac aag aac acc ccc acc cac tca  
asn asn ile leu ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser  
cgt ccc gag cca gtg aag gcc acc tgc aaa gga att ata gcc tcc aaa aat gcg tca acc  
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr  
acc tcc gag ccc cac ccc ccc gac cgc aac gca aca agc agg ccc tgc aag cac aaa tta  
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu  
aag aaa tca acc aac aca tcc cgc gca acc tgc gag aac cca gcc cca gca cac ccc gcg  
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val  
ggc gcc gga cat tgc  
gly val gly his cys

recombinant Met(-1) RaPLR1 Met23Leu-(His)<sub>6</sub>

09961400-092501  
T05260-00479660

SEQ ID NO:10/11

DNA sequence 315 b.p.

linear

tca gac tgg ctt acg ttt cag aag aag cac ctg aca aac acc cgg gat gtt gac tgt  
ser asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys  
aat aat atc atg tca aca aac ttg ttc cac tgc aag gac aag aac act ttt atc tat tca  
asn asn ile met ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser  
cgt cct gag cca gtg aag gcc atc tgt aaa gga att ata gcc tcc aaa aat gtg tta acc  
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr  
acc tct gag ttt tat ctc tct gat tgc aat gta aca agc agg cct tgc aag tat aaa tta  
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu  
aag aaa tca act aat aca ttt tgt gta acc tgt gag aat caa gct cca gta cat ttc gtg  
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val  
ggc gtc gga cat tgc  
gly val gly his cys

recombinant RaPLR1 Q1S

00479650



SEQ ID NO:12/13

DNA sequence 315 b.p.

linear

atg tca gac tgg ctt acg ttt cag aag aag cac ctg aca aac acc cgg gat gct gac tgt  
met ser asp trp leu thr phe gln lys lys his leu thr asn thr arg asp val asp cys  
aac aat atc atg tca aca aac ttg ttc cac tgc aag gac aag aac act ttt atc tat tca  
asn asn ile met ser thr asn leu phe his cys lys asp lys asn thr phe ile tyr ser  
cgt cct gag cca gtg aag gcc atc tgt aaa gga att ata gcc tcc aaa aat gtg tta act  
arg pro glu pro val lys ala ile cys lys gly ile ile ala ser lys asn val leu thr  
acc tct gag ttt tat ctc tct gat tgc aat gta aca agc agg cct tgc aag tat aaa tta  
thr ser glu phe tyr leu ser asp cys asn val thr ser arg pro cys lys tyr lys leu  
aag aaa tca act aat aca ttt tgc gta act tgt gag aat caa gct cca gta cat ttc gtg  
lys lys ser thr asn thr phe cys val thr cys glu asn gln ala pro val his phe val  
ggc gcc gga cat tgc  
gly val gly his cys

recombinant Met(-1) RaPLR1 Q1S

0961400-092501

SEQ ID NO:14/15

DNA sequence 330 b.p.

linear

CAG AAC TCG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC ACT  
 gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn thr  
 ATC ATG GAC AAC AAC ATC TAC ATC GTT CGT GGT CAG TGC AAA CGT GTT AAC ACT TTC ATC  
 ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe ile  
 ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT CTG  
 ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val leu  
 TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG TGC  
 ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro cys  
 CCG TAG TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC CCG  
 pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr pro  
 GTT CAT TTC GCT GGT ATC CGT CGT TGC CCG  
 val his phe ala gly ile gly arg cys pro

Rana catesbeiana synthetic gene & translated amino acid sequence

09961400-092501

SEQ ID NO:16/17

DNA sequence 333 b.p.

linear

ATG CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC  
met gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn

ACT ATC ATG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC  
thr ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe

ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT  
ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val

CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG  
leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro

TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC  
cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr

CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG  
pro val his phe ala gly ile gly arg cys pro

[Met-(-1)] *Rana catesbeiana* gene & translation of  
expressed protein

T05260-00419660

SEQ ID NO:18/19

DNA sequence 333 b.p.

linear

CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC  
 gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn  
 ACT ATC CTG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC  
 thr ile leu asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe  
 ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC CTG AAC GTT  
 ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn leu asn val  
 CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG  
 leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro  
 TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC  
 cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr  
 CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG  
 pro val his phe ala gly ile gly arg cys pro

Rana catesbeiana gene with two mutations  
 to regenerate pyroglutamic acid N-terminal  
 Met 22 Leu  
 Met 57 Leu

09561400-092501  
 005260-00475660

SEQ ID NO:20/21

DNA sequence 333 b.p.

linear

ATG CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC  
 met gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn  
 ACT ATC CTG CAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC  
 thr ile leu asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe  
 ATC ATC TCT TCT GGT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC CTG AAC GTT  
 ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn leu asn val  
 CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG  
 leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro  
 TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC  
 cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr  
 CCG GTT CAT TTC GGT GGT ATC GGT GGT TGC CCG  
 pro val his phe ala gly ile gly arg cys pro

(Met-(-1)) *Rana catesbeiana* gene with two mutations  
to regenerate pyroglutamic acid N-terminal

Met 22 Leu

Met 57 Leu

F05260"004T560

SEQ ID NO:20/22

DNA sequence 333 b.p.

linear

(His)<sub>6</sub>- ATG CAG AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC  
 met gln asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn

ACT ATC CTG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC  
 thr ile leu asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe

ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC CTG AAC GTT  
 ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn leu asn val

CTG TCT ACT ACT GGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG GGT CCG  
 leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro

TGC CCG TAC TCT TCT GGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC  
 cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys gly asn gln tyr

CCG GTT CAT TTC GCT GGT ATC GGT GGT TGC CCG  
 pro val his phe ala gly ile gly arg cys pro

{Met-(-1)} *Rana catesbeiana* gene with two mutations  
 to regenerate pyroglutamic acid N-terminal

Met 22 Leu

Met 57 Leu

(His)<sub>6</sub>

F05260"004T9660

SEQ ID NO:23/24

DNA sequence 333 b.p.

linear

TCA AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC  
ser asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn

ACT ATC ATG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC  
thr ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe

ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT  
ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val

CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG  
leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro

TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC  
cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr

CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG  
pro val his phe ala gly ile gly arg cys pro

Q1S *Rana catesbeiana* gene  
(serine in 1 position)

F05260"004960

SEQ ID NO:25/26

DNA sequence 333 b.p.

linear

ATG TCA AAC TGG GCT ACT TTC CAG CAG AAA CAT ATC ATC AAC ACT CCG ATC ATC TGC AAC  
met ser asn trp ala thr phe gln gln lys his ile ile asn thr pro ile ile cys asn

ACT ATC ATG GAC AAC AAC ATC TAC ATC GTT GGT GGT CAG TGC AAA CGT GTT AAC ACT TTC  
thr ile met asp asn asn ile tyr ile val gly gly gln cys lys arg val asn thr phe

ATC ATC TCT TCT GCT ACT ACT GTT AAA GCT ATC TGC ACT GGT GTT ATC AAC ATG AAC GTT  
ile ile ser ser ala thr thr val lys ala ile cys thr gly val ile asn met asn val

CTG TCT ACT ACT CGT TTC CAG CTG AAC ACT TGC ACT CGT ACT TCT ATC ACT CCG CGT CCG  
leu ser thr thr arg phe gln leu asn thr cys thr arg thr ser ile thr pro arg pro

TGC CCG TAC TCT TCT CGT ACT GAA ACT AAC TAC ATC TGC GTT AAA TGC GAA AAC CAG TAC  
cys pro tyr ser ser arg thr glu thr asn tyr ile cys val lys cys glu asn gln tyr

CCG GTT CAT TTC GCT GGT ATC GGT CGT TGC CCG  
pro val his phe ala gly ile gly arg cys pro

[Met-(-1)] Q1S *Rana catesbeiana* gene  
(serine in 1 position)

T05260-00419650



SEQ ID NO: 27/28

```

1   atcagttgct catcgtttga ccaagttggt ttccatctga agcaatatatt
51  atatataatt tctcttatat ataaaggcct gatcacgact tccagaatgt
                                     M F
101 ttccaaaatt ctcatttctc ctgatatttg cagttgtttt gagtctcact
    P K F S F L L I F A V V L S L T
151 cataagtcct tatgtcaaga ctggcttacg ttccagaaga agcacctgac
    H K S L C Q D W L T F Q K K H L T
201 aaacacccgg gatgttgact gtaataatat catgtcaaca aacttgttcc
    N T R D V D C N N I M S T N L F H
251 actgcaagga caagaacact tttatctatt cacgtcctga gccagtgaag
    C K D K N T F I Y S R P E P V K
301 gccatctgta aaggaattat agcctccaaa aatgtgttaa ctacctctga
    A I C K G I I A S K N V L T T S E
351 gttttatctc tctgattgca atgtaacaag caggccttgc aagtataaat
    F Y L S D C N V T S R P C K Y K L
401 taaagaaatc aactaataca ttttgtgtaa cttgtgagaa tcaagctcca
    K K S T N T F C V T C E N Q A P
451 gtacatttcg tgggtgtcgg acattgctag aaatatgttt gacaacaggg
    V H F V G V G H C *
501 atgtgataag cagctgcaag aaattatatt gaagtgaatt tactaaagac
551 actaattttg cataaatttt cccagagct taccggtagt aagaaaattc
601 caacagggag ccaagcacag aaagtaaaact aaggagccaa agtaattata
651 aaagtccacac tggaccgctg ctactgcact cagatgacca aatgagaaac
701 agacaaaaaac agcagagttg ggaagcgag atccggggagg tggcggggag
751 tcaattgggg gcggagtcca tgtgagattt ggaaccgttt gttgctggtg
801 aagcatgtgg ccggtgcaca gtacacatgg ggaaagatag tggattggc
851 cgggctcgct gtgggtggtg cggcggttga gccaaaggtg gtggggagat
901 ggctgtcccc cttctgtggg gggctgtgga cagagggagc tgcggaccag
951 ggggtgggagg cctggagaga attttcaaac agctgacgtg gccggggctg
1001 ggcagcatcg gggaggggaa gggctgggct cagatccagg aagcatggtc
1051 actgtatgac cagagtggaa gatggcagag ccgctgcagt ggccggggag
1101 accagagggg tctgtgcccc gcctttcccc tccctgatgt ggcccgtttt
1151 tggttatggt aaccgctccc agctgttttg ggggtgtttc ggggttcgca
1201 tttttggtct gcggctccct ctgtccacgg ccctcatgga gggggggtgg
1251 gcatttctcc accgcctttg gctctgttgc tggcactgtc gcagcgagtt
1301 tggccagtca tggctcattt tcccatttgt catgtgtgtt ggttgcattt
1351 tttgtcggcg gtggactgtt ttgaatttca catggattcc atcttcggtt
1401 ggttccttgc cacctcctgg atctgtgctt tccaattctg ttttttcccc
1451 agcgcttagt ggatgcagtg aaactctggt gattaccatc atccaatcat
1501 gtgcaagaaa aaatatattt atatttcttc cacccaattg ggtattcatt
1551 tggaaagttt agcacattca cgttctaggg aaaatgagtg caactgcact
1601 tccaaagtcc acagtctatt tgcctttagt aaatccacc cattatttct
1651 gagcagagga caaatctatg gcaacaaaaa aactttacct actgaattat
1701 tttatatgta ttgaagataa tctttctttc atttctaaa tattgtaatc
1751 aaaattaata cataacagct atgtattata ccacagcagc aaatgttaaa
1801 atagttttta acgtaaaata tgttttacct taaagtggaa gtaaacttct
1851 atcactaaat tttacctata ggtgagaccc atgcgctctt caggaatggc
1901 cgctgggtgct gttccttcag agccctgtgc tgcgaacggc ggctcccgtg
1951 tgcattgtaca ggagtgcagt catcacagct ccggccagtc acagagttag
2001 agttcaagtg tgagtggctt gacccacgat gatgtcgctc ccaaacatgt
2051 gtgcgggggt ctccgtttgc ggcgaggac actgggggaa tagcatgggt
2101 gtgccggtcc ttcagagcat atgcgtgggt gacgtcacta gctgcattca

```

F0560" 0049660

2151 aagtaatatc tcctaaacaa tgcacattta ggagatagtt acagtaccta  
2201 tgggtaagcc ttattgtagg cttacctata ggtaaaaatc atgcatggga  
2251 gtttacttcc accttaacac cggcatagct gcgtgtttat aaaccaacca  
2301 gcagtagcaa atgtagggat gaggagagca ggctgacata ttaaagtaaa  
2351 aatcttacct atagtgggtg aaagtagttg aaaataagat ggccctgcagg  
2401 gtcttaaaaa ggctaggata gcacagtatc cacatgaggc accagatctc  
2451 gctccccac acatgagtag caaggagcaa tggtaatgtg agtttcttag  
2501 gctcgaccgt taaatagcgt tggccctcca agtgatacat gggagataag  
2551 cagatgtccg cgtatgcacg cagacatatg tgggcggatg ttgggatagg  
2601 acgatcagag agatgctcag atctgcccga aggagaaagg tggaaacatc  
2651 cattcaatgt catatgccta aagaagccac ccaccataaa aagttaatag  
2701 atcatcaggt ggcagccaac cacaccaggc ccaaaggagg gtggccccag  
2751 tggaccgtat aggaacagca ctgagctatc acataattac acaagagtat  
2801 agagacccat tgtgggtatt aacaaccaa tggctaaaaa aaaaaaaaaa  
2851 aaaaa

T09250-004T0650